

**CLAIMS:**

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. An electrochemical cell device arranged in an automatic cleaning appliance used in the cleaning of objects comprising:

a first metallic plate, a last metallic plate and a plurality of intermediate metallic plates, each of said plates having two essentially parallel sides with a large surface area in comparison with a peripheral side connecting said parallel sides,

said plurality of plates arranged with one of said parallel sides of one plate facing one of said parallel sides of an adjacent plate, for each of said plurality of intermediate plates,

a connection between a positive electrode of a source of direct electrical current and said first plate and a connection between a negative electrode of said source of direct electrical current and said last plate,

an inlet to allow the introduction of a fluid containing a chemical composition to be decomposed by said cell device during a period of decomposition and an outlet to allow the dispensing of the resultants of the decomposition of said chemical composition.

2. An electrochemical cell device according to claim 1, wherein said plurality of plates are arranged in a straight line.

3. An electrochemical cell device according to claim 1, wherein said plurality of plates are arranged in an arc.

4. An electrochemical cell device according to claim 1, wherein said automatic cleaning appliance is a fabric washing machine.

5. An electrochemical cell device according to claim 4, wherein said source of direct electrical current comprises a source of rectified alternating current and wherein the

electrical components providing the rectified current are arranged to be cooled with water used in said washing machine.

6. An electrochemical cell device according to claim 1, wherein said automatic cleaning appliance is a foodware washing machine.

7. An electrochemical cell device according to claim 6, wherein said source of direct electrical current comprises a source of rectified alternating current and wherein the electrical components providing the rectified current are arranged to be cooled with water used in said washing machine.

8. An electrochemical cell device according to claim 1, wherein said fluid containing a chemical composition comprises water and said resultants comprise hydrogen and oxygen.

9. An electrochemical cell device according to claim 8, further comprising a

10. An electrochemical cell device according to claim 1, wherein said fluid containing a chemical composition comprises water and a dissolved salt and said resultants comprise at least chlorine.

11. An electrochemical cell device according to claim 10, further including a storage space provided in said device arranged to receive a supply of a salt composition in solid form to be dissolved by water obtained from a source of water in said appliance to be used in said cleaning of objects.

12. An electrochemical cell device according to claim 10, further including a lockout mechanism for said appliance and an activating apparatus for said lockout mechanism, said activating apparatus including a sensor arranged to detect a concentration level of said chlorine.

13. An electrochemical cell device according to claim 1, wherein said positive electrode connection at said first plate and said negative electrode connection at said last plate comprise the sole direct electrical connections between said source of direct electrical current and said plates.
14. An electrochemical cell device according to claim 1, wherein said source of direct electrical current comprises a source of rectified alternating current.
15. An electrochemical cell device according to claim 1, wherein said source of direct electrical current comprises a source of inverted alternating current.
16. An electrochemical cell device according to claim 1, wherein said fluid comprises an electrolyte and said plates are arranged in an electrical series connection with said electrolyte providing an electrical connection between adjacent plates.
17. An electrochemical cell device according to claim 1, wherein said fluid containing a chemical composition comprises water obtained from a source of water in said appliance to be used in said cleaning of objects, and including a filter upstream of said plates.
18. An electrochemical cell device according to claim 17, wherein said filter comprises a water softener mechanism.
19. An electrochemical cell device according to claim 1, including a control arranged to monitor a voltage across said first and last plates.
20. An electrochemical cell device according to claim 1, including a control arranged to regulate an electrical current flowing through said electrodes.
21. An electrochemical cell device according to claim 1, including a control arranged to monitor a pressure change between said inlet and said outlet.

22. An electrochemical cell device according to claim 1, including a back-washing mechanism arranged to remove materials deposited onto said plates during said period of decomposition.

23. An electrochemical cell device according to claim 22, wherein said back-washing mechanism is arranged to back-wash via a chemical technique.

24. An electrochemical cell device according to claim 22, wherein said back-washing mechanism is arranged to back-wash via a thermal technique.

25. An electrochemical cell device according to claim 22, wherein said back-washing mechanism is arranged to back-wash via a mechanical technique.

26. An electrochemical cell device according to claim 1, wherein said objects are cleaned in a wash liquor in said laundry appliance and said resultants have characteristics to permit an altering of a pH of said wash liquor.

27. A chemical generator device arranged in association with an appliance having a cleaning zone where objects are cleaned comprising:

an inlet to allow the introduction of at least one chemical composition,

an operative area where a desired chemical composition is generated by utilizing said

5 at least one chemical composition,

an outlet communicating with said cleaning zone of said appliance, and

a dispensing apparatus arranged to dispense said desired chemical composition to said cleaning zone from said operative area through said outlet.

28. A chemical generator device according to claim 27, wherein an electrolysis apparatus is contained in said operative area.

29. A chemical generator device according to claim 27, wherein a continuous supply of at least one chemical composition is connected to said inlet.

30. A chemical generator device according to claim 27, wherein said dispensing apparatus is arranged to automatically dispense said desired chemical composition to said cleaning zone during a cleaning operation of said appliance.

31. A chemical generator device according to claim 27, further including a re-circulation loop in said appliance, and said dispensing apparatus is arranged to dispense said desired chemical composition to said re-circulation loop.

32. A chemical generator device according to claim 27, wherein said dispensing apparatus is arranged to dispense said chemical composition in the form of at least one of gas, vapor, foam, mist and liquid.